



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,276	05/12/2006	Wolfgang Schnell	SCHNELL-5 (PCT)	1737
25889	7590	06/23/2009	EXAMINER	
COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			YUN, JURIE	
			ART UNIT	PAPER NUMBER
			2882	
			MAIL DATE	DELIVERY MODE
			06/23/2009	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/579,276	SCHNELL, WOLFGANG	
	<b>Examiner</b>	<b>Art Unit</b>	
	JURIE YUN	2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12 May 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/12/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The preliminary amendment filed 5/12/06 has been entered.

#### ***Specification***

2. The abstract of the disclosure is objected to because it should consist of just one paragraph. Correction is required. See MPEP § 608.01(b).

#### ***Claim Objections***

3. Claim 3 is objected to because of the following informalities: it is not understood in line 2 how "the radiation source detects". Appropriate correction is required.
4. Claim 4 is objected to because of the following informalities: it is not understood in line 3 how "the radiation source detects". Appropriate correction is required.
5. Claim 19 is objected to because of the following informalities: it appears that perhaps "address" in line 2 should be "addresses". Appropriate correction is required.

#### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, the only element positively recited is "Device". It is noted that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function alone. See MPEP 2114.

In this case, it should be recognized that the "for" clause is functional in nature and does not distinguish structurally the instant claim over the prior art. See MPEP 2114 and 2111.04. Any x-ray inspection device would constitute "Device" as claimed in claim 1. Claims 2-33 are rejected due to their dependency on claim 1.

8. Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are, at the very least, a radiation source and a detector. These need to be positively recited in independent claim 1.

9. Claim 1 recites the limitation "the belt surface" in line 6. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 1 recites the limitation "the result" and "the irradiation test" in lines 8-9. There is insufficient antecedent basis for this limitation in the claim.

11. Claim 3 recites the limitation "the radiation source" in line 2. There is insufficient antecedent basis for this limitation in the claim.

12. Claim 3 recites the limitation "the entire width of the conveyor belt" in line 3. There is insufficient antecedent basis for this limitation in the claim.

13. Claim 4 recites the limitation "the radiation source" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

14. Claim 4 recites the limitation "the material-free state" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2882

15. Claim 5 recites the limitation "its upper part" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

16. Claim 6 recites the limitation "its lower region" in line 4. There is insufficient antecedent basis for this limitation in the claim.

17. Claim 8 recites the limitation "the radiation source" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

18. Claim 9 recites the limitation "the support stand" in line 3. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend claim 8 to depend on claim 6.

19. Claim 12 recites the limitation "the control device" in line 3. There is insufficient antecedent basis for this limitation in the claim. It is suggested to amend claim 10 to depend on claim 7.

20. Claim 13 recites the limitation "the support stand" in line 3. There is insufficient antecedent basis for this limitation in the claim.

21. Claim 16 recites the limitation "its edge region" in lines 4-5. There is insufficient antecedent basis for this limitation in the claim.

22. Claim 29 recites the limitation "the axle" in line 3. There is insufficient antecedent basis for this limitation in the claim.

23. Claim 31 recites the limitations "the control device", "the line sensor with image processor", "the defect marking system", "the first and second scanning unit", and "the encoder". There is insufficient antecedent basis for these limitations in the claim.

Art Unit: 2882

24. Claim 33 recites the limitation "the support stand" in line 4. There is insufficient antecedent basis for this limitation in the claim.

25. Regarding claim 5, the phrases "particularly" and "in particular" render the claim indefinite because it is unclear whether the limitation(s) following the phrases are part of the claimed invention. See MPEP § 2173.05(d).

26. Regarding claim 6, the phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

27. Regarding claim 16, the phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

28. Regarding claim 22, the phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

29. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 3, it is not known with certainty what is meant by "or is structured similar to a bar code". The metes and bounds of the claim are not known.

What are the structural limitations of a bar code?

30. Regarding claim 24, the phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Art Unit: 2882

31. Regarding claim 25, the phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

32. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The wording is awkward and it is not understood what exactly is being claimed.

33. Regarding claim 30, the phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

34. Claim 30 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not understood what is meant by "with other device parts of the stated type." What is the stated type?

35. Regarding claim 33, the phrase "particularly" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

### ***Claim Rejections - 35 USC § 102***

36. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2882

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

37. Claims 1-4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Green (USPN 7,065,175 B2).

38. With respect to claim 1, Green discloses device (Fig. 2A) wherein a radiation source (210) emits rays (220) in the direction of the belt surface, which rays are so energy-rich that they pass through the conveyor belt, whereby a process computer (Fig. 7 - 200) evaluates the result of the irradiation test.

It is noted that while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function alone. See MPEP 2114.

In this case, it should be recognized that the "for" clause is functional in nature and does not distinguish structurally the instant claim over the prior art. See MPEP 2114 and 2111.04.

The device of Green would be capable of carrying out destruction-free inspection of a conveyor belt made of elastomer material, having a carrying side for the goods to be conveyed, and a running side, as well as having an embedded strength support, whereby the conveyor belt moves.

39. With respect to claim 2, Green discloses wherein the radiation source (X-ray generator - 210) emits X-rays or gamma rays.

40. With respect to claim 3, Green discloses wherein the radiation source (210) detects the entire width of the conveyor belt (column 5, lines 38-40).



Art Unit: 2882

41. With respect to claim 4, Green discloses wherein the radiation source (210) detects the carrying side in the material-free state.

42. With respect to claim 7, Green discloses wherein the radiation source (210) is coupled with a control device (this is inherent and necessary in any X-ray emitting system).

***Claim Rejections - 35 USC § 103***

43. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

44. Claims 5, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (USPN 7,065,175 B2) as applied to claim 1 above, and further in view of Carver et al. (USPN 6,542,580 B1).

45. With respect to claim 5, Green does not disclose wherein the radiation source is accommodated in a support stand, particularly a transportable support stand, in particular within its upper part. Carver et al. disclose the radiation source (20) is accommodated in a support stand (12), particularly a transportable support stand, in particular within its upper part. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Green to have the radiation source accommodated in a support stand, particularly a transportable support stand, in particular within its upper part, to enable meeting the needs of a given site or event, as taught by Carver et al. (column 1, lines 52+).

Art Unit: 2882

46. With respect to claim 6, Carver et al. disclose wherein the support stand (12) is a four-sided support frame (with sections 14, 16, 18, and 19), whereby the conveyor belt (22) runs within the support frame, particularly within its lower region.

47. With respect to claims 8 and 9, Carver et al. disclose wherein the radiation source (20) corresponds with a line sensor with image processor that lies opposite, which is disposed below the running side; wherein the line sensor with image processor is disposed on the support stand (column 6, lines 44+).

48. Claims 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (USPN 7,065,175 B2) as applied to claim 1 above, and further in view of Wijts et al. (USPN 6,563,904 B2).

49. With respect to claims 26-29, Green does not disclose wherein the device is provided with an encoder; wherein the encoder is driven by the conveyor belt itself; wherein the encoder stands in connection with a movable part of the conveyor that comprises the conveyor belt; wherein the encoder is driven by way of the axle of a non-driven drum. Wijts et al. disclose a device is provided with an encoder (20); wherein the encoder is driven by the conveyor belt itself (28); wherein the encoder stands in connection with a movable part of the conveyor that comprises the conveyor belt; wherein the encoder is driven by way of the axle of a non-driven drum. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Green to include an encoder; wherein the encoder is driven by the conveyor belt itself; wherein the encoder stands in connection with a movable part of the conveyor

Art Unit: 2882

that comprises the conveyor belt; wherein the encoder is driven by way of the axle of a non-driven drum, to enable monitoring of the position of a workpiece on the conveyor belt at all times, as taught by Wijts et al. (column 10, lines 29+).

50. Claims 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Green (USPN 7,065,175 B2) as applied to claim 1 above.

51. With respect to claims 30-33, Green does not specifically disclose wherein the process computer is coupled at least with the radiation source, particularly with other device parts of the stated type. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the process computer of Green is coupled at least with the radiation source, particularly with other device parts of the stated type, because this is inherent and necessary in X-ray imaging systems. It would also have been obvious to one of ordinary skill in the art to have the process computer coupled with: the radiation source by way of the control device; the line sensor with image processor; the defect marking system by way of the control device; the first and second scanning unit, as well as the encoder, because all these elements need to work together in the system and would necessarily need to be controlled in some working manner. It would also have been obvious to one of ordinary skill in the art to have the process computer coupled with a monitor, to enable displaying output to the user. It would have also been obvious to one of ordinary skill in the art to provide a radiation protection device disposed on the support stand or its immediate vicinity, to protect humans from radiation exposure.

***Conclusion***

52. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JURIE YUN whose telephone number is (571)272-2497. The examiner can normally be reached on Monday-Friday 8:30-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jurie Yun/  
Primary Examiner, Art Unit 2882

June 19, 2009